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## **Assessing Expressed Emotion Influences on Autistic Symptoms/ Behaviors: A School Social Worker Perspective**

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Assessing Expressed Emotion Influences on Autistic Symptoms/Behaviors: A School  
Social Worker Perspective

By

Mackenzie R. Flaharty, B.A.

MSW Clinical Research Paper

Presented to the Faculty of the  
School of Social Work  
St. Catherine University and the University of St. Thomas  
St. Paul, Minnesota  
In Partial fulfillment of the Requirements for the Degree of  
Master of Social Work

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The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present the findings of the study. This project is neither a Master's thesis nor a dissertation

## **Abstract**

This research paper explores how components of Expressed Emotion (Critical Comments, Emotional Over-involvement, Warmth) experienced in the classroom are influencing student behavior and symptoms for students with Autism. Qualitative data was collected from one school social worker. This study confirms and builds upon previous research on Critical Comments and Warmth. Critical comments, especially when delivered by a staff member poorly, increased maladaptive behavior and decreased social interaction and communication. Warmth inversely decreased maladaptive behaviors while increasing communication and social interaction. Emotional Over-involvement was dependent upon the individual student and neither confirms or rejects previous research. Each member of the classroom group impacted how these Expressed Emotion components were expressed. Staff that were well educated and/or experienced in working with students with Autism were described as displaying high levels of Warmth. Study limitations and recommendations for future research are also discussed.

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As every child with Autism goes to school a whole host of social interactions are navigated, whether intentional are not. Some of the higher functioning students with Autism may receive few to no additional school services while others may spend their full days in special education classrooms. Much research, both helpful and unhelpful, has considered how the environment at home affects the individual's overall wellbeing. Much less knowledge is known about what the school environment is like or how such environment impacts the students' wellbeing. Individuals with Autism are commonly perceived to have socio-emotional deficits that may lead to differing interpretations of the everyday emotional experiences at home and school. This exploratory study looks to investigate the extent and significance of a school emotional environment and its impact on students with Autism.

### **Epidemiology**

The rate of formally diagnosed Autism is growing. As many as 1 out of 88 children are estimated to be diagnosed with Autistic Spectrum Disorders in the United States (Lord & McGee, 2012). The disorder is more common in boys than girls with a 3:1 or 4:1 boy to girl ratio (Black & Andreasen, 2011). From 1998 to 2008 the number of children with autism enrolled in U.S. public schools grew from 0.1 % to 0.7 %. Federally supported autism programs grew from 53 to 336 over the same time span (United States Department of Education, 2010, Table# 45). A recent study examining the prevalence of diagnosed Autism Spectrum Disorder shows that 1 in 50 children with Autism may be a more accurate figure than earlier estimates. Using parental surveys the percentage of student with autism in 2007 was 1.16 % and increased to 2 % in the 2011-2012 school year, a 72 % growth (Blumberg et al. 2013).

The increasing prevalence is due in part to improved recognition of the disorder. According to the Minnesota Department of Education (2012) Autism Spectrum Disorder needs survey there were 15, 378 students on the spectrum in Minnesota from birth to age 21. This represents 12 % of the total receiving special education services in Minnesota.

### **Diagnosing Autism**

There are four criteria for the diagnosis of Autism Spectrum Disorders as described in the DSM V. They include: impaired social communication and interaction, repetitive and restrictive behaviors, symptoms must be present beginning in early childhood, and collectively the symptoms must impair everyday functioning.

Uncomfortable or limited social interaction and communication are generally hallmark of the disorder. Impairments can begin as early as 3-6 months (Black & Andreasen, 2011).

Autism is a complex disorder. The degree of impairment for those with autism varies. For example, mental retardation is found in around 70 % of the diagnosed, but some subjects have significantly higher than average IQ's (Black & Andreasen, 2011).

This variance is accounted by three major types of Autism Spectrum Disorder. They include Asperger's, Autism, and PPD-NOS, each of these meets the criteria described above, however, the prominence of impairments differ (Meier, 2012). IQ level, degree of symptoms, prominence of certain symptoms over others all emphasize that autism has a variety of presentations. Just as there are differing causes that lead to autism, there are likely going to be some treatments that will work for one individual but not another.

## **Response of Schools**

Two main approaches to the treatment of autism have informed how schools work with these students. Behavioral methods posit that conduct of a student is influenced by reinforcement or punishment response of a teacher or other staff member. Students with Autism that demonstrate appropriate behaviors receive reinforcement while unwanted behaviors are discouraged through punishment. The hope is that students over time increase wanted behaviors and decrease unwanted behaviors. Punishment may be as simple as communicating the word “no” to a student. Most current use of behaviorism emphasizes positive reinforcement as the best form of learning. A discrete trial is a specific behavioral method frequently used in schools. It involves breaking a new skill or task into distinct parts to be mastered. Each part is repeated continuously until the entire skill/task is mastered. Reinforcers are implemented throughout in the forms of verbal praise, play, or candy (Committee on Educational Interventions for Children with Autism, 2001).

The other common approach is a developmental strategy. Areas of treatment are formed by a comparison of the functioning of developmentally appropriate peers to the student with Autism. The child typically directs activity and the adult will model or demonstrate appropriate environmental exchanges (Committee on Educational Interventions for Children with Autism, 2001).

Most treatments emphasize language and social skills. The earlier the intervention begins the better long-term outcomes. Often treatment is a combination of various components including, a therapy teaching social skills, medications, physical therapy,

occupational therapy, speech-language therapy, and others. With the enrolment of students with Autism growing many schools are still adapting. There is some evidence that the treatments utilized in schools are not best practices (Hess, Morrier, Heflin & Ivey 2008, Bellini, Peters, Benner & Hopf. 2007).

Within the classroom, children with Autism must socially navigate both staff and peer interactions. The Minnesota Department of Education educator survey (2012) noted that paraprofessionals were working with kids with Autism for about 50 % of the day. A Minnesota parental and educator survey found the top ongoing needs were an increased amount of paraprofessional training, social skills development, and life skills development. In integrated classrooms, Chamberlain Kasari and Rotheram-Fuller (2007) found that despite students with Autism not reporting greater loneliness, they commonly experienced being on the outside of the social environment with peers, less activity and interaction with a single best friend, and less reciprocity.

### **Family Burden and Coping**

Much of the research looking at treatment outcomes looks at the individual with Autism alone without consideration of the entire family impact (Karst & Van Hecke, 2012). Evidence of a diagnosis of Autism may be present in as early as six months of age when differences in communication and fine motor skills are first present. In the second year, there is evidence of differential play, repetitive behaviors, and feeding habits (Bolton, Golding, Emond, & Steer, 2012). Parents of children with Autism are at risk for increased levels of anger and depressed mood (Benson & Karlof, 2009) along with higher rates of social phobia (Lainhart, 1999). In a review of the literature Karst and Van Hecke (2012) also name physical health problems, financial strain, time strain, and high

rates of divorce as the typical family experiences. Strong family and social support improve outcomes (Benson & Karlof, 2009, Ekas, Lickenbrock & Whitman 2010).

### **Teacher Burden and Coping**

There is some evidence that teachers can also face specific burdens when working with the unique needs of students with Autism. Lecavalier, Leone, and Wiltz (2006) found that Autism related behavior problems, particularly conduct, were associated with increased stress for both parents and teachers. Hastings and Brown (2002) similarly showed that stress from behavioral challenges for special education teachers were best mediated by adaptive coping strategies such as reframing, acceptance and humor. Maladaptive coping strategies increased risk of burnout and included self-distraction, denial, and self blame.

Further, teachers face external stress from outside sources such as planning instructions based on state instructional standards, scrutiny by parents and advocates, and sufficient documentation of efforts in Individual Education Plans. Boyer and Lee (2001) recommended older special education teachers mentor newer teachers, developing insightful administrators and ensuring reasonable school district resources to manage some of the external stress.

### **Expressed Emotion**

The impact of both family and school staff burden on the wellbeing and behavior of students with autism must be explored. One way of measuring this emotional environment is through a concept named “Expressed Emotion.” As explained by Vostanis, Nicholls, and Harrington (1994) “Expressed Emotion is a measure of emotional attitudes with respect to a specific individual.” When Brown and colleagues began

research on what happened to schizophrenic patients after a discharge from the hospital in 1956 they noticed patients' chances of relapse increase if they returned to live with parents or wives. This finding held true for schizophrenic patients but not other psychological disorders like depression (Brown, 1985). When Brown initiated a second study in 1959 he similarly found that relapse rates were worst when patient and mother lived together but were both unemployed. This phenomenon was titled *high emotional involvement* (Brown, 1985).

Methodological concerns abounded. Brown and researchers wondered if patients who did not return home to parents or spouse spent more time in hospital and were thus better off. Within a family, researchers often knew how relapse for the patient was proceeding despite the emotional atmosphere of the household. Further, how does such an atmosphere become correctly assessed (Brown, 1985)? It was noted that direct talking to a schizophrenic was problematic and unreliable (Brown Monack, Carstairs & Wing, 1962). Nevertheless, Brown felt he was able to get a sense of a family atmosphere within a few minutes of observation (Brown, 1985).

Brown and colleagues spent a few years figuring out how to develop this sense into a measureable concept. Emotional involvement was renamed *Expressed Emotion* (EE) in 1967 (Leff & Vaughn, 1985), and by 1972, the Camberwell Family Interview was developed into quantitative measures (Brown, Birley, & Wing, 1972). Five measures were ultimately determined to make up EE: Warmth, number of Positive Comments, number of Critical Comments, Hostility, and Emotional Over-involvement (Brown et al. 1972). Positive and Critical Comments are simple numerical counts during the specified interview time with the researcher. Hostility is rated categorically.

Emotional Over-involvement and Warmth are assigned by the researcher post interview (Wearden, Tarrier, Barrowclough, Zastowny, & Rahill 2000).

However, Brown, Birley, and Wing (1972) noticed that families typically presented with a general sense of Warmth or Criticism. The greater Warmth a caregiver displayed the better the outcomes, opposed to highly critical caregivers who had poorer outcomes. Critical Comments were the best predictor of relapse. Hostility did not occur with Critical Comments, though Critical Comments did occur alone. Emotional Over-involvement had some impact on relapse rates (Brown et al. 1972). Since Brown was primarily focused on families with high relapse rates, Warmth and Positive Comments were dropped or ignored from many expressed emotion measures thereafter (Brown et al. 1972). Leff and Vaughn (1985) state Warmth and Positive Comments were remained in theory due to possible variations in a subject's culture and diagnosis type. Yet, high levels of expressed emotion have effectively become laden with negative connotations.

The original Camberwell Family Interview (CFI) was lengthy and obligatory multiple more semi-structured interviews (Brown, et al. 1972). Vaughn and Leff (1976) created a modified CFI. The semi-structured interview lasts about ninety minutes and can be used with multiple family members (Atkinson & Coia, 1995). This revised CFI measures Critical Comments, Hostility, Emotional Over-involvement and Warmth.

Critical Comments were recorded when a comment was made about the client's behavior or characteristics that was disliked by the client. Hostility was categorically quantified and accounted for generalized criticism of client attitudes that reject the client, neither, or both. EOI and Warmth scales were determined post interview by the



researcher. Specifically EOI included areas of exaggerated emotional response, over intrusive behavior or over identification of client (Wearden et al. 2000).

Given the lengthy and labor-intensive process of administering the CFI, alternative methods for measuring EE have been used (Hooley & Parker, 2006). One common alternative developed by Magana et al. (1986) is the Five Minute Speech Sample (FMSS). This measurement is based on a five-minute conversation between caregiver and child. A ranking of high criticism implies that there was a negative opening remark, the relationship was described in unfavorable terms, or there was at least one criticism about the child (Greenberg, Seltzer, Hong & Orsmond, 2006). Hostility and Warmth are not assessed for, but in the case of Warmth, frequency is accounted for in the Emotional Over-Involvement rating (Hooley & Parker, 2006). Both the CFI and FMSS assign Low overall EE in the absence of either criticism or EOI (Benson, Daley, Karlof & Robison, 2011).

### **Role of Social Work**

Social work considers environmental influences that contribute to the wellbeing of individual relationships and the larger society (NASW, 2008). It is with this understanding that the researcher seeks to draw an ongoing awareness of how young individuals with Autism are impacted by their environment. As schools continue to work with kids on the spectrum, social workers must be prepared to observe and meet the challenges of each child's unique network of relationships. In this study, it is specifically the relationship between the student with Autism and school staff members being considered.

**Purpose of Study**

The purpose of this study is to examine how core components of EE, such as Critical Comments, Emotional Over-involvement, and Warmth are observed by school social workers directly working with the Autistic population. To the researcher's knowledge EE has only been evaluated within the family environment. Yet, children spend a significant percentage of their time in an academic setting, which is unavoidably host to an emotional dynamic. Information for this study will be gathered using a qualitative interview of a school social worker. This information will provide a clarified perspective of how the emotional environment both at home and school influence symptoms, behaviors, and general wellbeing of both the student and caregivers/staff.

## **Literature Review**

### **Overview and Definitions**

For the purpose of clarification, the following concepts are defined as follows.

Expressed Emotion (EE) is the overall emotional vigor of a household or other environment. EE initially included Critical Comments, Hostility, Emotional Over-Involvement, Positive Comments, and Warmth. Eventually, EE was broken further into three main areas of research, Critical Comments, Emotional Over-involvement, and Warmth. Therefore, in theory, high EE could reflect both high levels of affirmation and disapproval concurrently. EE criticism or Critical Comments (CC) are explicit words or phrases of disapproval, resentment, rejection or statements that are delivered with a critical tone of voice (Kavanagh, 1992). Hostility is similar but involves more global critical remarks or attitudes about the subject than the former (Wearden, et al. 2000). Excessive self sacrifice, overprotection, or over identification with the subject are core attributes of Emotional Over-involvement (EOI).

After the Brown et al. (1972) study, Warmth and Positive Comments stopped receiving focused attention (Wearden et al, 2000). This is in part due to thought that the variables were unrelated to schizophrenic relapse rates and that the Warmth in particular had demonstrated to be highly complex (López et al. 2004). Warmth then was described as “Positive Comments, especially if made spontaneously, were regarded as important. Sympathy, concern, interest in the other as a person, and expressed enjoyment in mutual activities were all relevant (Brown et al. 1972).” Noticeably Brown and colleagues use the term ‘Positive Comments’ to describe Warmth. Leff and Vaughn (1985) distinguish Positive Comments from Warmth by suggesting that a Positive Comment is specific, and

Warmth is more global. For this study, the researcher will conflate Warmth and Positive Comments for simplicity. Warmth will be defined as positive comments demonstrating sympathy and concern on behalf of the subject that the subject hears firsthand.

EE has decades of research looking at a variety of disorders, influences and outcomes. The review below will begin by discussing some of the differences of individuals with Autism compared to neurotypical individuals and their respective ability to process emotion. Next, studies on EE that demonstrate the causation of high or low levels of EE, and whether there is a relationship between specific components of EE—specifically Critical Comments and EOI will be noted. Then EE levels and their relationship to various child diagnoses and the extent of maladaptive behaviors will be discussed. This section will include the reemerging role of Warmth. Finally, EE studies specific to Autism will close the review.

### **Autism and Exchanges of Emotion**

The role of emotion in Autism is complex. The process and ability of individuals with Autism to recognize emotion have been studied extensively. This is not to say that subjects with Autism fail to show emotions. Parents have perceived children with Autism to display more negative emotion and less positive emotion than controls (Capps, Kasari, Yirmiya & Sigman, 1993). One study (Hall, Szechtman & Nahmias, 2003) demonstrated that emotion processing occurred in different places in the brain. The researchers of the study hypothesized that greater thalamic activation for patients with Autism supports the idea that processing of emotional facial expressions is done categorically. Neurotypical peers, however, process facial expressions holistically.

Whether or not this brain difference extends to correct identification of another's emotions has conflicting conclusions. Some evidence suggests that children/teenagers with Autism have poorer emotion identification across all emotions than neurotypical children. (Rump, Giovannelli, Minshew & Strauss, 2009, Kuusikko et al. 2009, Bölte & Poustka, 2003). Others found no significant difference (Tracy, Robins, Schriber & Solomon, 2011, Jones et al. 2011, Brennand, Schepman & Roadway, 2011). Rieffe, Terwogt, and Stockmann (2000) found that high functioning subjects with Autism performed poorer than controls on typical emotions but just as well as controls on atypical emotions.

Two specific categories do seem to influence the ability to recognize emotion for individuals with Autism and neurotypical subjects—age and IQ. Kuusikko et al. (2009) discovered that for individuals with Autism, emotion recognition skills seem to improve with age. Rump et al. (2009) noted that in early childhood specifically, individuals with Autism have poorer emotional recognition skills compared to peers. However, differences in emotion recognition skills become insignificant between the ages of 8-12 until adulthood when the difference emerges once again. Secondly, IQ levels appear to influence emotion recognition ability. Lower IQ's for individuals with Autism and neurotypical subjects resulted in a poorer performance in emotional recognition, but IQ's above 70 lead to a statistically significant variance between groups (Jones et al. 2011). In other words, a low IQ level impaired an individual's ability to recognize emotion regardless if he/she was diagnosed with Autism.

In a qualitative study directly asking subjects with Autism common emotional feelings, four themes including, a sense of alienation, a sense of frustration, depression,

and pervasive sense of fear or apprehension were identified (Jones, Zahl & Huws, 2001). Such a study does not assess if emotions are interpreted correctly, but whether or not subjects with Autism perceive emotion at all. Risk for depression appears greater in high functioning individuals with Autism than controls (Ghaziuddin & Greden 1998, Hill Berthoz, & Frith, 2004).

Subjects with Autism are inevitably impacted by their daily experiences of emotional exchanges. Thede and Coolidge (2007) compared the personalities of Asperger subjects (13 boys M age=11.8, SD=3.0; 3 girls M age=10.3, SD=3.1, IQ's >70) with those of High Functioning Autism (8 boys M age=10.4, SD=4.0; 7 girls M age=9.6, SD=2.8, IQ's <70). Findings included similarities in deficits in executive functioning, Attention-Deficit/Hyperactivity Disorder levels, and similarity on most personality scales. Asperger subjects scored significantly higher on two anxiety personality scales than those in the High Functioning group.

Tonge, Brereton, Gray and Einfeld (1999) in a comparison of emotional and behavioral differences of Aspergers and High functioning groups found higher levels of disruptive and antisocial behaviors in the group with Aspergers. Globally individuals with Autism are more likely to present with, anxiety, compulsive behaviors, attention problems, hyperactivity, and sleep difficulties than neurotypical peers (Lainhart, 1999).

### **Etiology of Expressed Emotion**

Determining the manner in which EE originates is essential information for the best treatment and/or interventions. If components of EE are characteristic based traits then changing an individual's EE becomes a futile task, as a parent with High CC cannot expect to lower their respective level. If EE is dependent on an individual state then

change can be influenced with environmental variables, and determining interventions may be worthwhile.

When multiple children of a family are studied the research generally supports state based EE presentations. Hibbs, Hamburger, Kruesi, and Lenane (1993) found variable EOI levels based on environment. Similarly, Schreiber, Breier and Pickar, (1995) showed that a single mother could demonstrate high EOI levels with their schizophrenic child but not their non-schizophrenic child. Gibb, Uhrlass, Grassia, Benas, and McGeary (2009) found that a mother's current depressive symptoms were related to higher levels of CC, but past depression was not shown to influence present levels. Silk et al. (2009) found that the mother's likelihood for high CC increased when her child was at risk or presented with depression like symptoms suggesting variability. McFarlane and Cook (2007) showed parental variability of EE based on the progression of a child's increasing symptoms and impairments due to schizophrenia or a mood disorder. As a child became increasingly prodromal, the mothers EOI and CC increased, and Warmth decreased.

Alternatively, Tompson et al. (2010) suggests EE is more trait like when mothers have a history of depression. Schreiber, Breier and Pickar, (1995) found maternal CC levels inconclusive between schizophrenic and non-schizophrenic child suggesting CC as a personal trait. Other studies show that EE levels change little over time (Greenberg et al. 2006) though a degree of change is possible (Sandberg, Rutter & Jarvi, 2003). Wuerker, Hass, and Bellack (2001) posit a certain subset of high CC individuals may have a unique difficulty integrating information. The study observed relatives of schizophrenic patients over a two year time frame that maintained high CC levels.

Patterson, Birchwood and Cochrane (2000) looked at the relationship of first episode psychosis patients and their various relatives. They found that about one quarter or relatives switched from high overall EE to low or vice versa. Those who varied were predominantly from high EE to low levels. Specifically, this group was also found to have a reduction in perceived loss due to the illness of the family member.

In a study of personality characteristics and EE, Hooley and Hiller (2000) found that individuals with high overall EE were more conventional in beliefs and felt both less capable and optimistic than Low EE individuals. Low EE individuals showed a high degree of flexibility. Further forms of coping strategies, as well, can be telling to EE levels. Nonreligious coping predicted higher levels of CC and EOI than religious coping. Yet, maladaptive religious coping predicted the highest levels of CC and EOI overall (Wasserman, Weisman & Suro. 2013).

Moreover, the key researched components EOI and CC have an indeterminate relationship. In a review of the literature Wearden et al. (2000) found mixed data to determine whether a single caregiver can rank both high on CC and EOI. Hastings, Daley, Burns and Beck (2006) using a purposive sampling measure had 75 mothers agree to be part of a study of EE and child behavior problems. Looking at the descriptive data 10 mothers ranked high on Critical Comments and EOI, 36 had low levels of CC and EOI, 16 had high CC only, and 13 ranked high on EOI only. Stubbe, Zahner, Goldstein, and Leckman (1993) found the opposite. Using a community survey they found that parents were never both ranked high in EOI and CC, therefore, suggesting that CC and EOI are independent of one another.



### **Child Diagnosis and Parental Critical Comments**

In the last few decades, expressed emotion has been expanded greatly from specific issues of relapse to the larger relationship of a caregiver's EE levels and their child. Of particular interest has been the relationship between the mother's level of critical expressed emotion and a child's wellbeing and/or psychological symptoms. When mothers rank as having low EE scores then children diagnosed with social anxiety show a reduction in symptoms (Garcia-Lopez, 2009). Higher rates of maternal CC were found when a child was depressed (Asarnow, Tompson, Woo & Cantwell, 2001). Gibb et al. (2009) hypothesized that a child's risk for depression would be in part related to environmental stressors associated with the mother's own history of depression and high levels of CC. Such findings show that children have increased depression symptoms in the presence of high parental CC but only when the child exhibits both a negative inferential style for self and they are genetically similar. Tompson et al. (2010) found that CC variables alone were not predictive of child depression symptoms, but maternal CC and depression combined interact in increasing child depressive symptoms.

### **Child Behavior and Parental Critical Comments**

A clear relationship occurs between maternal CC and behavioral problems of the child. Conduct disorder (Vostanis et al. 1994) or a disruptive behavior diagnosis (Stubbe et al. 1993) was more likely for children when caregivers demonstrated higher levels of CC than lower levels. More antisocial behavior problems were found in the monozygotic twin who received higher CC and less Warmth than the alternate twin (Caspi et al. 2004). Higher levels of maternal CC were found to be cross-sectionally but not longitudinally related to a child's externalizing behavioral problems. Yet, a child's internalizing

behavior problems were unrelated to maternal CC in children with an intellectual disability (Hastings et al. 2006).

### **Child Symptoms/Behavior and Parental EOI**

Stubbe et al. (1993) found high levels of EOI were associated with elevated rates of anxiety disorders between parent and child. Lam, Gilies, and Lavander (2003) showed EOI was connected to disturbed behaviors with the caregiver's perceptions on eating, sleeping, and toileting rituals. Similarly, Hibbs et al. (1991) found that parents with children/adolescents with either Disruptive Behavior Disorder or Obsessive Compulsive Disorder had higher levels of overall EE compared to children with no diagnosis. However, Vostanis et al. (1994) found no difference in parental EOI levels across youth with conduct disorder, emotional disorders or controls.

### **Parental Warmth**

Finally, while CC may be a risk factor for schizophrenic relapses, levels of Warmth also matter. Schizophrenic patients had lower relapse rates when they returned to environments with high Warmth versus low Warmth despite some high Warmth families being rated high on CC levels (Bertrando et al. 1992). López et al. (2004) found that for Mexican American families' warmth is a significant protective factor to relapse.

Vostanis et al. (1994) demonstrated the importance of warmth for youth by changing a specific behavioral related diagnosis against a control. Conduct disorder youth received the least amount of parental Warmth, emotional disorders demonstrated more and controls received the most. Tully, Arseneault, Caspi, Moffitt and Morgan (2004) demonstrated that teacher ratings of ADHD symptoms of students were moderated when mothers were determined to have high levels of Warmth. Adult epilepsy

patients have improved clinical and pharmacological adherence (Bressi et al. 2007).

Evidence of good maternal and paternal Warmth exists in the family based treatment of Anorexia Nervosa (Le Grange, Hoste, Lock, & Bryson, 2011).

### **Expressed Emotion and Autism**

Expressed Emotion research is limited when specifically looking at individuals with Autism. Similar to other diagnoses, Autistic symptoms of repetitive behaviors, circumscribed interests, impairments in reciprocal social interactions, and impairments in communication all increased in the presence of high overall EE (Greenberg et al. 2006). Less severe maladaptive behaviors in subjects with Autism were found that mothers who had low levels of pessimism/high self-esteem (Orsmond, Seltzer, Greenberg & Krauss, 2006). Reversely, high overall EE in 149 mothers increased maladaptive behaviors in the child with Autism (Greenberg et al. 2006).

### **Gaps in the Literature**

To the researcher's knowledge there is limited research looking at EE outside of the family milieu. Databases searched included, Social Work Abstracts, SociINDEX with Full Text, Social Service Abstracts, PsychINFO, and ERIC. Search words included, expressed emotion, criticism, school, community. Given the EE concept originated as looking at the family environment alone such a conclusion is not a surprise. The researcher found a single study that assessed EE outside of the family environment. Berry, Barrowclough, and Haddock (2011) found that the impact of EE between staff and schizophrenic patients were similar to previous studies of parent and patient with schizophrenia.

In the school environment EE may also play a role. All students, including those on the spectrum, are in the classroom environment for large portions of their childhood. School staff may have varying levels of EE. Furthermore, the interaction between differing environments of EE at school and home is unknown. A low EE environment at school may influence a high EE environment at home or vice versa.

There is also a limited but base for looking at Warmth. As suggested earlier, this limitation is likely due to difficulties in reliably assessing for Warmth. Databases searched included, Social Work Abstracts, SociINDEX with Full Text, Social Service Abstracts, PsychINFO, and ERIC. Search words included, expressed emotion, Warmth, Positive Comments, Emotional Over-involvement.

### **Summary**

In response to the challenges of capturing the emotional energy of an environment, EE continues to evolve. EE has been extended from looking at mother-schizophrenic child relapse rates to a whole host of different types of relationships and dynamics. This broadening continues to shed light on the impact of certain emotional exchanges in significant relationships. However, its expansion has also led to a whole host of different uses of EE. For many, EE has come to mean Critical Comments and Emotional Over-involvement alone. It is only in recent years that the concept of Warmth re-entered fields of research.

The dichotomy between EE trait or state causation is clearly complex. Perhaps the suggestion by Greenberg et al. (2006) of a bidirectional approach in which a child's symptoms/behavior mutually interact with the caregiver's own symptomatology allows for ample understanding. A change in a caregiver's EE may impact the behavior of an

individual with Autism, but the reverse equally holds true. Further, behavioral changes are possible, but their implementation requires both time and effort.

It is clear from the literature that the degree of EE in the family influences the mental health, behavior, and attitudes of the child across a range of behaviors and diagnoses. Higher levels of criticism are responsible for worsening symptoms common to mood and anxiety disorders as well increased levels of maladaptive behavior. High levels of parental emotional over-involvement have less research but current evidence suggests some increases in maladaptive behaviors. Lastly, Warmth may buffer some of the negative outcomes of CC and is an important factor in treatment of many common childhood Axis 1 Diagnoses.

What is known about EE and Autism is limited and may or may not be related to how an individual with Autism process' emotion. Individuals with Autism process emotion differently and the literature is mixed on just what emotions if any, are experienced in the way a neurotypical subject might. Brain structures for emotional processing do differ. Higher IQ and age for the individual with Autism appear to help to an extent. IQ may help explain why subjects with Asperger report more anxiety than others on the spectrum. Regardless, current EE research in Autism shows high EOI and CC negatively impacting Autism symptoms and behaviors. This study looks to build upon the limited research of EE in subjects with Autism in the school setting.

Due to the nature of this study EE will be measured qualitatively allowing for observations from social workers working directly in the field. Interviews enable sharing lengthier observations to convey the unique elements of specific emotional environments. These social workers are well positioned to examine the emotional environment at school

because they work closely with staff and students yet often are a step removed from day to day interactions in a classroom. School social workers reflections can build upon much of the current literature in a preliminary way via the school environment.

### Conceptual Framework

For this study, the researcher used the Ecological Theory to examine the relationship between the child with Autism and their environment. The Ecological Theory has accounted for environmental influences such as Expressed Emotion. Forte (2007) using Germain (1979) explanation of ecological theory described the theory as the exchanges between organisms within the physical and social environment. These transactions are of a distinct character and have varying outcomes. In essence, the theory posits that an individual's behavior is inexorably linked to the environment in which they reside. Equally important is the idea that all relationships are reciprocal (Forte, 2007).

The paradigm opposes an anthropocentric view of the world and asserts that an environment is varied and influences an individual in differing ways. The *microsystem*, or immediate setting, is one in which involvement by an individual is on a daily basis such as the home or school, slightly larger is the *mesosystem*, which is made up of two or more of the Microsystems. This level is chiefly interested in the linkages and dynamics between the various existing settings. Finally, the macrosystem is the overarching patterns across a culture such as an entire community or the economy (Forte, 2007). Expressed Emotion can also be present across each of these levels of environment. Critical Comments from a caregiver, community, or a culture and their perception of Autism are specific respective examples of *microsystem*, *mesosystem*, and *macrosystem* environmental levels of influence. Each level interacts in a consistent active process that influences the life of the person. Forte (2007) proposes:

There is a relationship between a development outcome (competence or dysfunction) and the proximal process, the characteristics of the person, the nature of the current

setting, and the length and frequency of the time interval during which the person is exposed to the proximal process (pg. 138).

Assessing the emotional environment at home and at school takes into account to smaller Microsystems that an individual with Autism interacts with frequently.

Using the ecological theory as a framework can offset many of the historical drawbacks of using Expressed Emotion. Expressed Emotion has been used to accuse families of relapse and mental illness in readmitted clients (Malone, 1993). A history of blaming the family is equally a common thread in Autism. The idea that a lack of maternal warmth was the primary cause that led to Autism prevailed for decades. Though this specific cause is discredited, pieces of the theory continue to persist in certain corners of society (Fitzpatrick, 2009).

Emphasizing the Person-in-environment within the ecological model does not attribute blame or fault to individuals. Shortcomings occur when transactions between environment and individual have failed to reasonable needs. The use of Expressed Emotion is useful as a tool because it can help specify and explain how certain transactions overtime lead to certain outcomes. The researcher's intent was to identify some of the environmental factors at school that may influence the behavior and mental health of the individual with Autism.

Limitations of ecological theory exist as well. Working from a Person-in-environment perspective is often abstract and lacks explicit knowledge in any given area. There is a large amount of information that can hinder specific solutions and strategies. Often naming a particular cause is complicated because of the reciprocal interactions between individual and the environment. Finally, the ecological theory often overlooks



other influences such as the role of individual genetics or the role of personal choice in social interactions (Forte, 2007).

Combining both the ecological model with Expressed Emotion principles allowed integration of strengths while expunging some of the limitations. As a concept, Expressed Emotion has allowed for a specific way of looking into the environment of an individual in a measured way. Critical Comments, Emotional Over-involvement and Warmth are components that were key in defining what contrasting influences were experienced in an individuals' own environment. Furthermore, the larger reciprocal understandings of interactions of the ecological model were inherent to this study. As this study did not seek to assign blame or judgment to any classroom environment.

## **Methods**

### **Research Design**

The aim of this study was to explore the emotional environment of elementary classrooms for students with Autism. By gathering the perspective of individual school social workers, the researcher assessed if any connection existed between the types of emotional environments and the overall wellbeing of students with Autism. The study was qualitative in nature.

Assessing the emotional environment of the classroom must account for a range of variables in order to be comprehensive. Each classroom varies significantly based on the multiple dyadic relationships and interactions of the classroom. Expressed Emotion (EE) attempts to account for an environment holistically and has been traditionally measured quantitatively. Yet much of relationships cannot be captured statistically. Qualitative research, therefore, seems best to assess the emotional environment that cannot be reduced to a numerical value (Berg, 2007).

School social workers are positioned to perceive the emotional environment of both the Autistic classroom and at home. Principles of EE such as Critical Comments (CC), Emotional Over-involvement (EOI), and Warmth are all inherent in any relationship and, therefore, will be investigated. Tools that directly measure EE such as the Camberwell Family Interview or the Five Minute Speech Sample were not directly referenced in the formation of the researcher's questions.

### **Sample**

Potential research participants were selected through both snowball and convenience sampling. Criteria for selection was originally based on school social

workers with a minimum of 2 years working with students with Autism in elementary schools in Southeast Minnesota who also demonstrate sufficient contact for working with children with Autism. Sufficient contact defined as a social worker that is assigned to work with students in special education programs at least 50 % of the time, or a social worker working specifically with the Autistic population at least 20 % of the time. Due to the challenges of finding research participants the study was eventually expanded to include middle school social workers as well. Suggestions from committee members and the researchers own network were utilized to identify an appropriate sample.

### **Protection of Human Subjects**

Prior to any data collection, an application was submitted and approved by the Institutional Review Board of St. Catherine University. The participant was informed of potential risks and benefits through signing a consent form (See appendix C) before participating in the study. Confidentiality was maintained through de-identification of data. When transcribing data any identifying information was changed to ensure privacy. The researcher planned to use a single assistant to help transcribe interview recordings, but due to the small sample the assistant was not used. All recordings and identifying information will be destroyed by May 20<sup>th</sup>, 2013.

### **Research Setting**

A collection of public elementary and middles school programs, that works with children with Autism across southeastern Minnesota including the Twin Cities Metro area.

**Instrument**

The Institutional Review Board of St. Catherine University approved the research questions prior to the interview. Questions were determined to be low risk for the research participant. In order to improve the validity and reduce researcher bias, committee members also reviewed all questions. The questions explored areas of Criticism, Warmth, and Emotional Over-involvement between the child with Autism and school staff/caregivers. When Conceptualized, Critical Comments and Warmth were unchanged Emotional Over-involvement was conceptualized as overprotection comments between caregiver and student with Autism.

Demographic variables were originally collected to observe if participant answers varied depending on certain characteristics. Information such as age, gender, number of years working with students with Autism, size of school, ethnicity, type of classroom environment and size of the community have been collected.

**Data Collection**

Data collection was done in the following steps:

1. Using each committee member suggestions of 2-3 potential participants and researcher's own network, a list of social workers that work with children with Autism were identified.
2. The researcher contacted each potential person with a template email identifying how she got their name and if they would be interesting in participating in a study. The email included information on the study, its purpose, and how data will be gathered. See appendix B.

3. If a potential participant did not respond within one week, then researcher made follow-up contact to determine if they were still interested in participating.
4. Individuals who responded with interest were sent a consent form, a list of interview questions and a demographic form to complete
5. If potential participants expressed interest after reviewing consent form, questions, and demographics then an interview was scheduled
6. Conducting the interview was originally planned to be at the participant's worksite or an alternate site agreed on by the researcher and participant. In order to accommodate a willing participant the interview was conducted over the phone. Participants were reminded of the expected length of interview (40 to 60 minutes) and asked if there were any final questions.
7. The interview was audio-taped and transcribed

### **Data Analysis**

To analyze the responses thematic clustering was used. Audio of the interview recording were transcribed and included in analysis (Berg, 2007). Responses were sorted into categories that include themes.

### **Researcher Bias:**

The researcher's experience with students with Autism has been in two classroom environments. Once as a student intern at Northern Indiana Special Education Cooperative working with 6-7 year old students, a period lasting 4 months. Second as a paraprofessional, at Northeast Metro 916 Intermediate School district in Minnesota working with 14-18 year old students, a period lasting 1 month during summer school. The researcher's experiential bias may be strength given increased sensitivity to Autism

issues of EE, and a limitation in that it may also influence questions. It is expected the researcher will find evidence that Warmth will lead to positive behavior and reduced symptoms, CC into maladaptive behavior and increased symptoms.

## Findings

### Sample

Given unforeseen delays and challenges in finding research participants, criteria for participation was expanded to include school social workers in middle schools as well as elementary schools. Of the initial twenty potential participants contacted by the researcher, one research participant agreed to be interviewed. The participant was based in a suburban environment in a middle school of over 500 students. The classroom of students with Autism was self-contained. The participant reported working with students with Autism 25-49 % of the time and has been working with Autistic students for at least 9 years.

Given that only one research participant was interviewed themes were not generated. However, the responses of the research participant are discussed below with a number of quotes highlighting key points.

### Use of Critical Comments

When the research participant was asked to what extent staff displayed Critical Comments (CC) in the classroom along with the type, reason and frequency, the research participant noted a variety of ways (CC) occur in the classroom. When CC does arise it is preferably done privately among staff or intended as a personal message between staff and student. CC in the classroom may be experienced when other students involuntarily overhear these types of communications. A direct CC to a student may be used to give feedback such as *Okay I've seen this happen a couple times today have you noticed that your friends in the room are getting upset with you lets see what we can do to change this* (lines 45-47). A staff to staff comment might be an expression of frustration like *Oh my*

*gosh [David] is driving me crazy today* (line 48). The participant noted CC types of messages are happening daily when directed to students and a few times a week after school among staff.

When asked if there is impact of CC on student behavior and symptoms of Autism it was observed by the participant that use of CC has the potential for undesirable consequences. However, those consequences were reported to be largely dependent on the way the comment was presented. Poorly delivered comments are likely to increase maladaptive behaviors. For example:

*If you can present your comment in a way that lets the student know you are going to help them work through this behavior change ...[then CC probably has] ...a positive impact. But if they feel like they are just getting called on the carpet then we see an increase in behaviors (lines 72-75).*

Poorly delivered comments can also momentarily reduce communication and social interaction. For example:

*If someone has [used a CC] ...that seems a little more scolding ... initially we see a decrease in communication and social interaction. So it actually increases. ...[Autistic] symptoms briefly because the kid will sit quietly... thinking over what it is that they have been told (lines 82-85).*

The participant discussed the importance of following up a critical comment with a visual such as a picture to decrease the negative impact of CC. These schedules are commonly used to communicate to students about what is currently expected of them.

### **Use of Emotional Over-involvement**

The participant was also asked about the extent and type, reason and frequency of Emotional Over-involvement (EOI). EOI was mainly used to protect students who evoke the greatest level of need. The participant reported that students in this classroom often have a number of past negative experiences of school; therefore, staff must work



diligently to make school a rewarding experience. EOI is expressed in all kinds of ways including directly to a student about another *Hey you remember that [Sonja] has a different kind of need then you do* (lines 120-121), or to a regular education student that complains of students with Autism doing a special activity *Don't give our kids the business, the get what they need, and that is what makes this fair* (lines 132-133). The research participant even described staff to staff conversations may have reminders of each students own needs.

When asked about the impact of EOI on student behavior and communication/ social interaction the participant proposed that students with Autism tend to fall into one of three categories. Some of the kids who receive a degree of protection from staff *will blossom communication wise* (line 237). Helping these students navigate the social world allows for the student learn to use staff in ways that get their needs met. Other students resent staff interventions and respond to staff by stating *Don't come in here to help me cause I don't need help in this class* (lines 211-212). The final group will *Put their feet up and let...[Staff] do the social part of their day for them* (lines 217-218) if staff becomes too protective. The research participant suggested that protective comments require knowing each student well enough to know how they are likely to respond in a given situation.

### **Use of Warmth**

According to the research participant Warmth in the classroom is encouraged through classroom setting and proper educating of staff on Autism. The participant was asked about warmth in terms of current relationships in the classroom that may already be characterized as ones with CC or EOI. The participant noted that Warmth was in part

encouraged in the way that the classroom was arranged. In the classroom, there is a small area that is marked for staff only as well as individual student desks lined on the wall. The middle of the classroom allows for interactions amongst staff and students. The specific spaces for both students and staff are thought to encourage Warmth as the middle of the classroom can be chaotic. Further, the research participant noted that Warmth and empathy occur as a new staff member continues to be educated on Autism disorder by working directly with students.

When a student displays frustration staff may respond in a variety of ways. In some cases simply switching staff to work with different students allows for both staff and student to relax. Staff may ask a student *Can you explain to me what is going on here* (lines 278-279)? Sometimes Warmth is expressed through understanding the current functioning of the student. In one example of a student who begins each school day walking into the classroom swearing:

*[Staff has learned to] say 'well good morning, we are so happy to see you' ...[and] later say 'hey how about we cut down on the swearing a little bit?' she'll usually ... be able to move on in a more positive way (lines 103-106).*

The participant noted that when Warmth is used both staff and students *can sort of move past [maladaptive behavior] without escalating the [maladaptive] behavior* (line 107). Moreover, Warmth *Helps academically, but it also helps with so much socially* (lines 292-293). Warmth helps the kids enjoy coming to school and interacting with peers and staff.

### **Impact of Group**

The degree of CC, EOI and Warmth displayed varied depending on the current group of students. This final point found throughout the interview was not

a result of a specific question but a reoccurring theme. The research participant noted that there is less EOI in the group this current school year then the year before. Needs of each group varied. Some students, for better or worse, may influence the experience of other students.

*It is...the mix of kids. Because you know sometimes you can get a group of kids when the mix is just really nice....And then other years we may have other kids in there that ...upset the apple cart and we [staff] have to work a lot harder to get that group to mesh together (lines 197-200)*

The group of students as a whole suggested something about the emotional environment. At the same time, each student comes in with a different level of current functioning that shapes the way a student interacts with others.

*[Many] of them are fairly similar in their level of functioning and ... types of behavior. And then we have [a few students who] are sort of our outliers...whose symptoms are far more severe, whose developmental and cognitive functioning is quite a bit lower than the others (lines 115-118)*

The participant emphasized that the group as a whole, functions best when staff has an understanding of each individual student. Some students may require a more hands on approach by staff, and other students need more freedom to be successful. The student's ability to process emotion of staff differed amongst students.

## **Discussion**

### **Sample**

While a broader sample may have allowed for various perspectives, the researcher received almost no responses to initial contact emails that were sent out. This challenge may be due to a composite of cause(s). School social workers, particularly those who work with Autism, may feel burdened with their everyday responsibilities and, therefore, unwilling to volunteer additional time to research. Alternatively, one potential participant ultimately declined upon seeing the interview questions and consent form the participant did not state the specific reasons. This may suggest that the topic or the way in which the topic was presented was either uninteresting or made potential participants uncomfortable. The willing participant was knowledgeable about students with Autism in a school setting and had worked in the school environment for at least 9 years.

### **Use of Critical Comments**

This study broadly confirmed what is known about Critical Comments (CC) in the larger research arena. Garcia-Lopez et al. (2009), Gibb et al. (2009), Thompson et al. (2010) all found that parental CC can lead to increased symptoms common to either mood and anxiety disorders for the general population. Vostanis et al. (1994), Stubbe et al. (1993), Caspi et al. (2004) found high parental CC increased maladaptive behaviors. Some of the findings of this study have been extended specifically for the Autism population. The study found that CC by staff lead to increased maladaptive behaviors and a brief decrease in the student desire to communicate or be social with others. However, the research participant suggested that it is not the CC itself but the way in which the CC is delivered that influences long-term outcomes.

### **Use of Emotional Over-involvement**

When considering Emotional Over-involvement (EOI), the research participant suggested that her, students fell into one of three categories. For some students, EOI was necessary to their wellbeing, for others it was resented or abused. Stubbe et al. (1993) and Lam, Gilies, and Lavander (2003) suggested that for the general population parental EOI might lead to higher levels of anxiety and/or maladaptive behaviors. Hibbs et al. (1991) found high EOI levels for those with a behavioral based diagnosis while Vostanis, et al. (1994) found no difference in parental EOI levels in both behavioral and emotional disorders. This study's finding neither support or reject current literature.

### **Use of Warmth**

In the literature Warmth was shown to be a protective factor for Schizophrenic relapse (Bertrando et al. 1992) in Mexican families (López et al. 2004) and improved treatment adherence/ outcomes (Bressi, et al. 2007, Le Grange et al. 2011). A lack of warmth increased the serious of a behavioral diagnosis such as conduct disorder (Vostanis, et al. 1994) and teacher's reports of ADHD symptoms decreased when warmth was present (Tully, et al. 2004). The research participant described a nearly identical phenomenon to buffer maladaptive behavior for students with Autism. Warmth allowed the school setting to be more enjoyable and helped students navigate social situations.

### **Impact of Groups**

The research participant noted the variability of each group to explain how varying components of Expressed Emotion were used from year to year. Different groups led to different reactions in the classroom. This supports literature that Expressed Emotion levels can vary due to environmental factors (Hibbs et al. 1993, Schreiber,

Breier & Pickar, 1995 Silk et al 2009). The suggestion by Greenberg et al. (2006) of Expressed Emotion being a bidirectional phenomenon in which expression of Expressed Emotion components is both an individual given and able to be influenced by the environment is further demonstrated by this study.

Specifically, the level of functioning of the group seemed to have an impact of the group process. The few students with the most severe symptoms were described as outliers who processed the emotion of the classroom in different ways. This may support Jones et al. (2011) finding that IQ's below 70 lead to significant emotional impairment. If students with the most severe symptoms have the lowest IQ's then this collective group would be expected to process emotion differently compared to a group with higher IQ's.

### **Researcher Reaction**

Perhaps the most surprising result of the study was how enmeshed in the classroom the participant was despite the researchers assumptions of a school social role. A larger sample may have proven otherwise. However, given that to the researchers knowledge Expressed Emotions is being studied in schools for the first time it is unsurprising that there were incorrect assumptions. The researcher equally expected a higher response rate and wonders if the response rate would have been improved if concepts had been better defined and/or translated into terms more familiar to special education staff.

### **Limitations/Recommendations for Future Research**

By far, the most limiting factor in the study was the number of participants who were able to be involved. Criteria for participants were elementary school social workers with at least 2 years experience in Southeast Minnesota who demonstrate sufficient

contact with children with Autism (assignments of special education students 50% of the time or Autistic population 20% of the time). These requirements, particularly sufficient contact, were a possible limiting factor as two potential participants declined when they did not meet criteria. The researcher believes others may not have responded for similar reasons. Though the requirements were eventually extended to middle school social workers this occurred late in the direct research time frame. Other possible reasons for the small sample may be due to the school social workers schedules or an unforeseen limited time frame to conduct the study. Given such a limited sample size and qualitative study the results cannot be generalized to the larger population.

Repetition of this study might include efforts to increase sample size such as broadening sample criteria, financial incentives, or reducing interview time. An online survey or shorter interview time would shorten a participant's time commitment.

Other limitations were the difficulties in translating some of the more quantitative Expressed Emotion concepts to qualitative means as well as moving from the standard home environment to a school setting. This study assumed that using Expressed Emotion qualitatively could capture the emotional environment of the school. However, Critical Comments in particular failed to translate smoothly. The research participant examples of Critical Comments do not meet Kavanagh's (1992) definition entirely. Staff statements to students may have been received with resentment and been unambiguous, but the research participant did not mimic them with a critical tone of voice. The author believes critical comments in this study may have been conflated with behavior correction. More participants would help determine if interview questions were valid.

To prevent the possibility of conflation, future research could have a panel of special education teachers review the questions prior to the study to assess face validity. If terms of the study were more clear then it is possible that more potential school social workers would have been willing to participate. A quantitative study using pre-established tests such as the Camberwell Family Interview or Five Minute Speech Sample might also be beneficial.

This research assumed that the social worker would be an ideal research participant because they would be one step removed from the classroom. However, in the research conducted, the participant frequently used language that demonstrated regular involvement in the classroom. A larger number of participants may have shown otherwise. Her perspectives of Expressed Emotion may or may not be impacted by her direct experience with the students.

Future research could include participants not limited to social workers but other staff and administration in the school. A variety of professionals may help provide a multi-perspective picture of the emotional environment of a single classroom. Alternatively, the researcher could specifically target staff who are less directly involved in the classroom.

### **Additional Questions**

As social workers, teachers, and other staff continue to work with students with Autism ongoing inquiries must examine the role of Expressed Emotion in classroom settings. Are Critical Comments ever necessary? To what extent are the negative impacts of Critical Comments minimized when followed by demonstrations of Warmth? Is Emotional Over-involvement a natural consequence of working in a special education



classroom? Is it possible to show warmth without Emotional Over-involvement in such a particular setting? What characteristics of a certain group help the expression of the various EE components? Finally, does the level of support staff feel influence their classroom levels of Expressed Emotion? In other words, is there a connection between staff needs to be over protective of their students and their own feelings of being supported by the administration?

### **Implications for Social Work**

Social workers working with youth would do well to pay more attention to what sorts of Expressed Emotion are being used as well as the impact. The use of critical comments may be necessary but expressed in careful and limited ways. Emotional Over-involvement may or may not be beneficial but must be distinguished from Warmth. Warmth is a key factor in both decreasing maladaptive behavior and promoting pro-social activity. The impact of groups on the emotional environment varies from each year. Noting how students in school and elsewhere account for individual differences of responding to the various components of Expressed Emotion continue to be important. Due to changes in the group, any strategies that can maximize the use of Warmth from year to year become increasingly important. Examples may include staff training or activities that increase the cohesiveness of staff as suggested by Boyer and Lee (2001).

### **Conclusion**

The purpose of this study was to assess the influence of the classroom Emotional Environment for students with Autism. The strengths inherent to this exploratory study were addressing a gap in the literature, as the author is unaware of Expressed Emotion being studied in the school environment. This research heard directly from a professional

about her observations in the classroom. Past studies of emotional environments for students with Autism has largely been in terms of a student's ability to understand emotion cognitively or measurement of an immediate behavioral response. This study found that students with Autism respond best both behaviorally and socially/communicatively when the classroom environment has relationships that are characterized by Warmth. Critical Comments appear to be particularly harmful in the absence of Warmth. Emotional Over-involvement may or may not contribute to higher levels of student anxiety and maladaptive behaviors. This study suggested that, for a portion of students with Autism, use Emotional Over-involvement might be beneficial. Lastly, students with Autism have differing capacities and abilities to process a variety of emotions. Each individual has an impact on the emotional environment of a classroom.

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## **Appendix A: Research Demographics & Questions**

### **I. Demographics** (for each question below please check one)

Age:

☐ 20-29    ☐ 30-39    ☐ 40-49    ☐ 50-59    ☐ 60+    ☐ Prefer not to answer

Gender:

☐ Male    ☐ Female

Size of School:

☐ 0-100 students    ☐ 100-300 students    ☐ 300-500 students    ☐ 500+ students

Type of community setting:

☐ rural (less than 10,000)    ☐ suburban (10,001-150,000)    ☐ Urban (150,000+)

Type of classroom for autistic subject(s):

☐ Self-contained    ☐ Integrated    ☐ Combination

Number of years working with autistic students:

☐ 2-5 Years    ☐ 5-9 Years    ☐ 9-14 Years    ☐ 14+ Years

Based on your estimation what percentage of students at your school has an ethnicity that is either partly or entirely non-European

☐ less than 25%    ☐ 25-49%    ☐ 50-74%    ☐ 75-100%    ☐ Prefer not to answer

### **II Interview Questions**

#### **Critical Comments**

1) To what extent do you see staff displaying critical comments about students to:

- a. students?
- b. to other staff?
- c. to parents?

2) Describe what critical comments look like in these interactions?

- a. type
- b. reason
- c. frequency

3) What, if any, is the impact of critical comments on student behavior?

4) What, if any, is the impact of critical comments on the autistic students cognitive symptoms? Autistic symptoms are broadly defined as impaired social interactions and/or communication difficulties

5) How much warmth do you see in these relationships?

- a. example?

### **Emotional Over-involvement**

6) To what extent do you see staff displaying overprotection comments about students to:

- a. students?
- b. to other staff?
- c. to parents?

7) Describe what overprotection comments look like in these interactions?

- a. type
- b. reason
- c. frequency

8) What, if any, is the impact of overprotection comments on student behavior?

9) What, if any, is the impact of overprotection comments on student symptoms? Autistic symptoms are broadly defined as impaired social interactions and/or communication difficulties

10) How much warmth do you see in these relationships?

- a. example?

### **Other**

11) How do you support/intervene in the presence of staff critical comments?

12) What factors help support the expression of warmth among staff?



## **Appendix B: Initial Contact Email & Flyer**

Initial Contact Email (to participants)

TITLE: MSW Student Research on Autism in Schools

Hello, I am currently in my final year of my Master of Social Work program at University of St. Thomas/ St. Catherine University. As part of my degree, I am required to complete a research project in an area of my interest. My chosen topic is looking at the emotional environment of autistic students in the public school system.

### **Identification/Participant Qualifications**

You are being contacted as a potential participant for one of the following reasons: 1) A school social worker in the Minneapolis Public Schools system, 2) a social worker in St. David's Center for Family and Child Development, or 3) a prior research participant has offered your name as a possibility. Please note to participate in this study it is required that your current school social work assignment be either a .5 assignment of working with special education students or a .2 assignment of working directly with the autistic population in a elementary school. Additionally, two or more years of working with the autistic population is required (not limited to elementary schools).

### **Procedure**

If interested in learning more please let me know as soon as possible. Upon your response I will send you the list of interview questions, a demographic informational form and a consent form.

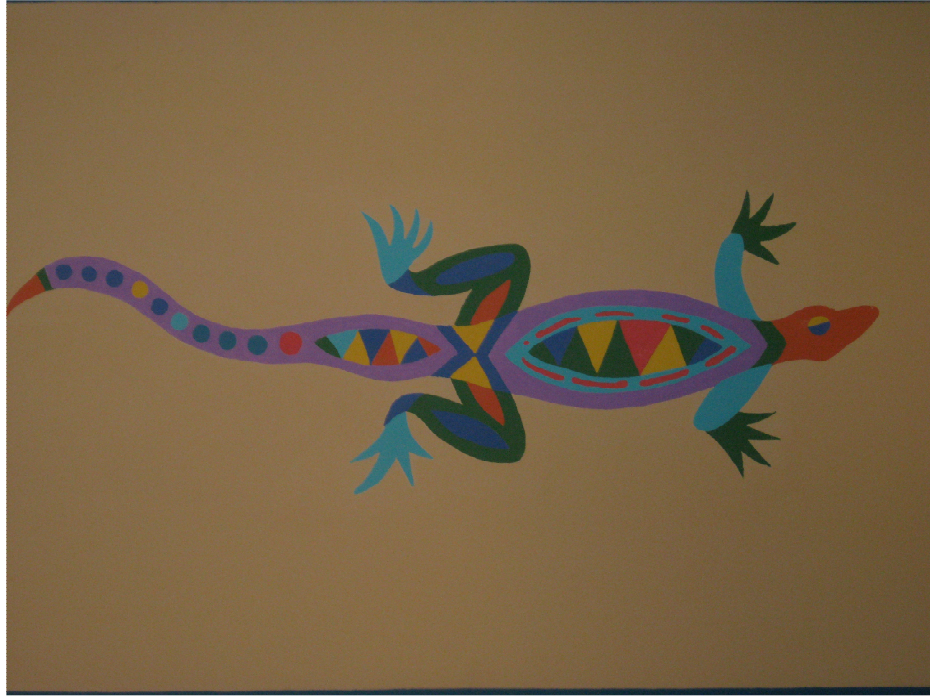
Please state your preference to the method of receiving the consent form, demographic form, and interview questions. I can email them as attachments or send them in the mail. Please provide a mailing address if applicable.

Thanks for your time and consideration,

Mackenzie Flaharty

# Research on Autism in Schools

Masters of Social Work Research Project



## Purpose of Study: to examine the emotional environment of Autistic students

**Interested in contributing to the knowledge base of how the school emotional environment influences/is influenced by autistic students? Please consider participating in this study. Qualifications include being a school social worker with either a .5 assignment of working with special education students or a .2 assignment of working directly with the autistic population. Additionally, two or more years of working with the autistic population is required. The study involves a single session with a researcher lasting approximately 40-60 minutes in which you as the participant will be asked to respond to a list of questions. If interested please use the contact information below to learn more.**

University of St. Thomas/ St. Catherine University

Researcher/ MSW Student: Mackenzie

[flah4581@stthomas.edu](mailto:flah4581@stthomas.edu)

(507) 254-9504

## **Appendix C: Consent Form**

### **Scope of Emotion in ASD: Exploring the emotional environment at school INFORMATION AND CONSENT FORM**

#### **Introduction:**

You are invited to participate in a research study investigating the emotional environment of students with Autism Spectrum Disorder at school. This study is being conducted by MSW student Mackenzie Flaharty under the guidance of Michael Chovanec, a professor from St. Catherine University/ University of St. Thomas School of Social Work and a committee of two professionals from the community. You were selected as a possible participant in this research because it is believed that you meet the qualifications of length of time and amount on contact with autistic students in your professional role. Sufficient length of time is defined by two or more years of working with autistic students as a school social worker in any setting. Amount of contact includes either a .5 assignment of special education school social work or a .2 assignment to working with autistic students in an elementary or middle school setting. Please read this form and ask questions before you agree to be in the study.

#### **Background Information:**

The purpose of this study is to discover how emotional environment at school influences the degree of autistic symptoms or maladaptive behavior of the autistic subject. Approximately 10 people are expected to participate in this research.

#### **Procedures:**

If you decide to participate you will be asked to complete an audio taped interview at your workplace or a site agreed upon by both you and the researcher, e.g, library meeting room. For those still willing to participate, an interview will be scheduled. This study will take approximately 40-60 minutes over a single interview session.

#### **Risks and Benefits of being in the study:**

There is minimal risk to participants. Professionals will be asked to discuss the school environment and its impact on the autistic kids they work with. Participants will be shown the questions prior to deciding to participate or not. Participants can decide to refuse to answer any question they feel uncomfortable about.

There are no direct benefits to you for participating in this research. This study will contribute to a growing body of social work knowledge on the impact of the school environment for autistic children

#### **Confidentiality:**

Any information obtained in connection with this research study that can be identified with you will be disclosed only with your permission; your results will be kept confidential. In any written reports or publications, no one will be identified or identifiable and only group data will be presented. All identifying data will be transcribed and de-identified

I will keep the research results and audio recordings in a locked closet in my place of residence and only a single research assistant, my advisor and I will have access to the records while I work on this project. The research assistant will sign a form of confidentiality. I will finish analyzing the data by May 20<sup>th</sup> 2013. I will then destroy all original reports and identifying information that can be linked back to you.

**Voluntary nature of the study:**

Participation in this research study is voluntary. Your decision whether or not to participate will not affect your future relations with the University of St. Thomas or St. Catherine University in any way. If you decide to participate, you are free to stop at any time without affecting these relationships.

**Contacts and questions:**

If you have any questions, please feel free to contact me, Mackenzie Flaharty (507-254-9504). You may ask questions now, or if you have any additional questions later, the faculty advisor, (Michael Chovanec, 651-690-6722), will be happy to answer them. If you have other questions or concerns regarding the study and would like to talk to someone other than the researcher, you may also contact Dr. John Schmitt, Chair of the St. Catherine University Institutional Review Board, at (651) 690-7739.

You may keep a copy of this form for your records.

**Statement of Consent:**

You are making a decision whether or not to participate. Your signature indicates that you have read this information and your questions have been answered. Even after signing this form, please know that you may withdraw from the study at any time.

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I consent to participate in the study. I understand and agree the interview will be audio taped.

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Signature of Participant

Date

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Signature of Researcher

Date